1. A method comprising:

providing a first photonic carrier;

providing first information having a first bandwidth;

modulating the first photonic carrier to embody the first information therein, and produce a composite signal comprising the photonic carrier and a photonic sideband associated therewith; and

segregating the photonic carrier from at least a portion of the photonic sideband to provide a first hyper-dense photonic signal having a carrier photonic bandwidth less than the first bandwidth.

2. The method of claim 1, wherein segregating further comprises suppressing the photonic sideband to reduce the energy content thereof and retain the first information within the photonic carrier.

3. The method of claim 1, further comprising providing a second hyper-dense photonic signal, the first and second hyper-dense photonic signals having distinct, respective first and second photonic carriers and respective first and second photonic sidebands.

4. The method of claim 3, further comprising producing a hyper-dense, wave-division multiplexed signal by selecting the frequency of the first photonic carrier to be substantially the same as the frequency of the second photonic sideband.

5. The method of claim 4, wherein producing further comprises selecting the first and second frequencies corresponding, respectively, to the first and second carriers, to each be collocated within the range of the suppressed sideband of the other in order to place the first and second frequencies within the bandwidth of the first information.

6. The method of claim 5, further comprising transmitting the hyper-dense, wave-division multiplexed signal over a carrier medium to a destination.

7. The method of claim 6, further comprising photonically segregating the first and second carriers at the destination.

8. The method of claim 7, wherein photonically segregating further comprises selecting the first photonic carrier, and the method further comprises directing the photonic carrier to post processing for retrieving the first information therefrom.

9. The method of claim 8, wherein post processing further comprises directing the first photonic carrier into a non-linear medium to reconstitute an information sideband corresponding to the first information.

10. The method of claim 9, wherein post processing is conducted in a medium selected from a non-linear optical element, an electro-optical element, an electronic circuit, an interferometric system operating in accordance with the Mandel and Wolf effect.

11. The method of claim 10, wherein the medium is an electronic circuit configured as a photo-electric circuit.

12. The method of claim 10, wherein the medium is a non-linear optical element.

13. The method of claim 4, further comprising frequency shifting the hyper-dense, wave-division multiplexed signal.

14. The method of claim 1, wherein segregating further comprises segregating a first upper sideband and a first lower sideband from the first photonic carrier.

15. The method of claim 1, wherein segregating further comprises selectively attenuating the first and second photonic sidebands associated with the first and second photonic carriers.

16. The method of claim 1, wherein segregation further comprises:

dispersing energy of the composite signal by passing the composite signal through a dispersive photonic element selected from the group consisting of a prism, a hologram, and a diffraction grating; and

separating the output signal from the dispersed energy.

17. A method comprising:

providing a first photonic carrier;

providing first information having a first bandwidth;

embodying the first information in the first photonic carrier modulated in accordance therewith to produce a composite signal comprising the photonic carrier and a photonic sideband associated therewith; and

providing a first hyper-dense photonic signal having a carrier photonic bandwidth less than the first bandwidth.

18. The method of claim 17, wherein providing a first hyper-dense photonic signal further comprises segregating the photonic carrier from at least a portion of the photonic sideband.

19. The method of claim 18, wherein segregating further comprises suppressing the photonic sideband to reduce the energy content thereof and retain the first information within the photonic carrier.

20. The method of claim 19, further comprising providing a second hyper-dense photonic signal, the first and second hyper-dense photonic signals having distinct, respective first and second photonic carriers and respective first and second photonic sidebands.